

## **ABSTRACT OF THE DISCLOSURE**

In the present invention, items are described with a compact item descriptor where two items with the same compact item descriptor are interchangeable. The compact item descriptor can be generated for an item using a classification process and a set of parameters with values that describe the item.

An organization assigns an identifier, a part number, to an item. The compact descriptor for the part number is stored in the item description field of the materials planning system and in the Approved Manufacturing List, AML. The AML identifies the supplier and supplier part number that may be ordered as the item. The Bill of Materials, BoM, for a product, is the parts list to build the product. The AML is used to identify the suppliers and supplier part number to purchase items needed to build the product. The AML may contain errors and must be validated by the contract manufacturing company, called an EMS, Electronic Manufacturing Service provider. The EMS can use the compact item descriptor to validate or change the AML for a product quotation, for the ordering parts or components on the BoM.